

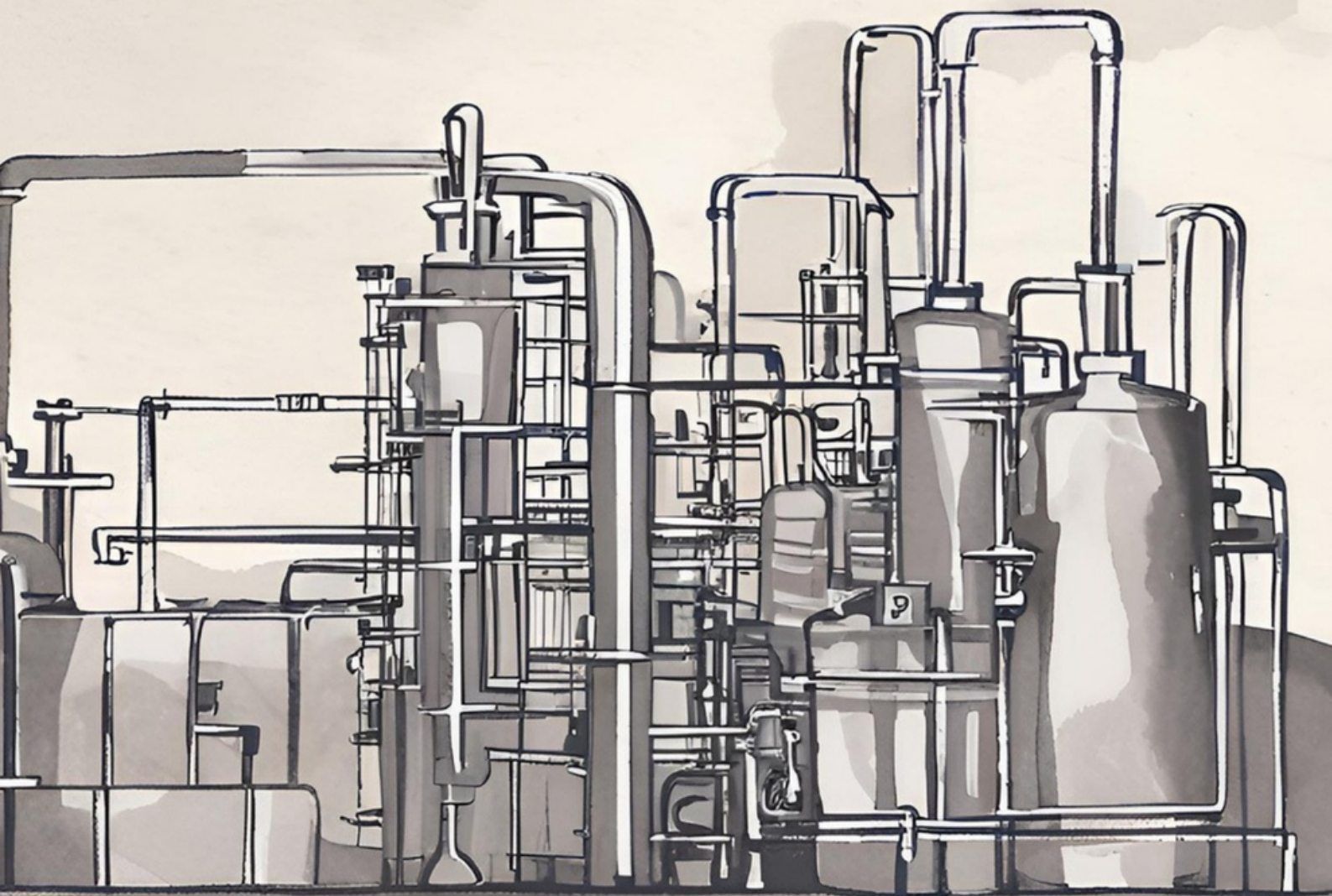


CHAITANYA BHARATHI
INSTITUTE OF TECHNOLOGY
Autonomous Institute | Affiliated to Osmania University

ChemElite ~ 2021 - 2022

Exploring the Boundaries of Chemical Engineering

Department of Chemical Engineering



Vision & Mission of the Institute

Institute Vision

To be a center of excellence in technical education and research

Institute Mission

To address the emerging needs through quality technical education and advanced research

Department Vision & Mission

Department Vision

To become the most sought centre of excellence engaged in training and shaping students as professionals for higher education and process industries both in India and abroad and allow the students to do R & D projects and publish same in the reputed journals.

Department Mission

- Imparting contemporary technical education and training manpower.
- To create a skilled human resource talent pool.
- To serve and manage the process industries globally with a sense of responsibility towards society and the environment.





ChemElite: Showcasing the Spirit of Chemical Engineering

ChemElite is the official newsletter of the Chemical Engineering Department, launched in 2021 to celebrate its vibrant community and accomplishments. Each issue provides a glimpse into the department's achievements, from academic and research milestones to industrial collaborations and student initiatives.

Designed to foster engagement, ChemElite features student projects, alumni stories, industry partnerships, and departmental events, offering a well-rounded view of the department's dynamic environment. The newsletter is curated by a dedicated editorial board comprising faculty and students, ensuring each edition reflects the department's commitment to innovation, excellence, and collaboration.

By sharing its achievements and vision, ChemElite strengthens the department's presence within the institute and beyond, building connections within its community and the wider professional world.

Editorial Team

The editorial board brings together a talented team of faculty and students:

- Chief Editors: Prof. M. Mukunda Vani & Dr. B. Ganesh
- Faculty Editors: Dr. P.V. Naga Prapura, Dr. M. Mallaiah, Sri. I. Bala Krishna, Dr. P. Madhuri, Dr. K. Prasad Babu, Dr. Prasanna Rani R., Dr. BVS Praveen, Dr. Raj Kumar Verma
- Chief Student Editors: Mr. Dhruv Gollapudi, Mr. Lingala Eswaraditya Reddy, Mr. Sheri Sai Kumar, Mr. E.G. Tanishq

ChemElite continues to serve as a bridge between the department's achievements and its aspirations, connecting its members and inspiring excellence at every step.



Principal's Message

It gives me immense pleasure to address the Department of Chemical Engineering through this newsletter. Over the past 44 years, CBIT has steadfastly strived to deliver quality education of international standards. With a legacy of nurturing engineering excellence, I am confident that our students, under the mentorship of our dedicated faculty, will emerge as skilled professionals ready to address the challenges of Industry 4.0 and the disruptions reshaping every industry.



CBIT prides itself on its strong industry partnerships. Leading organizations have established labs and collaborated on developmental projects within our campus, ensuring our students are exposed to real-world applications. Our curriculum is meticulously designed to meet industry demands by adhering to the AICTE Model Curriculum, the National Education Policy (NEP) 2020, and Outcome-Based Education (OBE). This structure fosters creative thinking, innovation, and the freedom to explore, aligning students with modern technological advancements.

To enhance employability, CBIT offers robust placement training and skill development programs. I encourage students to make the most of these opportunities and aim for their dream careers. Additionally, our well-established Entrepreneurship Development Centre (EDC) provides a platform for students to hone their entrepreneurial skills, contribute to the nation's progress, and embody our motto, "Swayam Tejaswin Bhava."

We have also cultivated a thriving ecosystem for startups and innovation. Through the guidance of faculty and industry experts, students are motivated to engage in research, innovation, patenting, and product development, focusing on sustainable technologies. These efforts underscore our commitment to fostering a culture of ideation and implementation.

CBIT emphasizes holistic development through a wide range of co-curricular and extracurricular activities. With over 54 active clubs, our students can explore their talents beyond academics, cultivating well-rounded personalities and responsible citizenship. I strongly encourage participation in sports, arts, leadership initiatives, and skill development programs, which add vibrancy and purpose to campus life.

As a proponent of pragmatic education, I firmly believe in the philosophy of "learning by doing." CBIT promotes experiential, project-based, and problem-based learning approaches to achieve the objectives of OBE. My vision, encapsulated in the "5Ps" — Placements, Publications, Projects, Patents, and Participatory Administration — serves as the cornerstone of our sustained excellence on national and international platforms.

At CBIT, we believe that the pursuit of excellence is a continuous journey. Our institute has contributed immensely to society by producing renowned technocrats, successful entrepreneurs, innovative scientists, and competent leaders. I urge all stakeholders to join hands in taking this institution to even greater heights.

Let us continue to innovate, inspire, and transform lives. Together, we can shape a brighter future for the Department of Chemical Engineering and CBIT as a whole.

Warm regards,
Dr. C.V. Narasimulu
Principal, CBIT



HOD's Message

Greetings to all readers of the Chemical Engineering Department Newsletter!

The Department of Chemical Engineering at Chaitanya Bharathi Institute of Technology (CBIT), established in 1995, has been at the forefront of providing quality education and preparing students to excel in the ever-evolving field of chemical engineering. With multiple accreditations from the National Board of Accreditation (NBA), our department has consistently demonstrated its commitment to excellence in academics, research, and innovation.



Chemical engineering is a dynamic and interdisciplinary field that combines principles of chemistry, physics, biology, and mathematics to develop sustainable solutions for society's needs. From designing efficient industrial processes to contributing to advancements in biotechnology, nanotechnology, energy, and pharmaceuticals, chemical engineers play a vital role in shaping a better future.

At CBIT, we aim to nurture engineers who are not only technically proficient but also creative, innovative, and equipped with problem-solving skills. Our undergraduate program offers both regular and honors degrees, along with the flexibility for students to pursue a Minor degree in other fields. This holistic approach to education ensures our graduates are well-prepared to address real-world challenges and contribute meaningfully to industry and research.

The department has always been proud of its strong ties with industry and academia. Our alumni have gone on to work in prestigious organizations such as Pfizer, Sanofi, and Takeda Pharmaceuticals, and many have pursued higher education and research opportunities globally. This success is a testament to the rigorous training and support provided by our highly qualified faculty, whose expertise spans diverse areas of chemical engineering.

In line with our motto, "We bring Chemical Engineering into Life," we encourage students to actively engage in research, innovation, and experiential learning. The department's focus on sustainable technologies, digitalization, and interdisciplinary collaboration ensures that our students remain at the cutting edge of this ever-expanding field.

Chemical engineering at CBIT is not just about academics—it's about holistic development. We encourage our students to participate in technical symposiums, workshops, and extracurricular activities that foster leadership, teamwork, and creativity. Our alumni network further strengthens the department, providing mentorship and opportunities for current students to connect with industry leaders.

I invite you to stay engaged with the Department of Chemical Engineering through this newsletter and welcome you to participate in our initiatives and events. Together, let us continue to advance the boundaries of chemical engineering and make a lasting impact on society.

Sincere regards,
Dr. M. Mukunda Vani
Head of Department
Chemical Engineering, CBIT



EDITOR'S MESSAGE

Dear Readers,

It is my privilege to present the latest edition of the Chemical Engineering Department Newsletter, a platform that celebrates the achievements, events, and innovations of our vibrant community at Chaitanya Bharathi Institute of Technology (CBIT).



Chemical engineering is a field of immense potential, addressing critical challenges in industries such as energy, environment, healthcare, and materials. This newsletter aims to showcase the remarkable contributions of our students and faculty in advancing these areas through academic excellence, research, and industry collaborations.

As the Coordinator of this newsletter, I am inspired by the dedication and creativity of our department. Each article, feature, and update is a reflection of the hard work and enthusiasm that define the spirit of CBIT's Chemical Engineering Department. From student projects and faculty research to industrial partnerships and alumni success stories, this newsletter serves as a bridge connecting our department to a broader audience.

I encourage everyone to actively engage with the content, celebrate the accomplishments of our department, and contribute to its ongoing success. Together, let us continue to push the boundaries of innovation and bring the transformative power of chemical engineering to life.

Warm regards,

Dr. B. Ganesh

Faculty and Newsletter Coordinator
Department of Chemical Engineering, CBIT

***Online Orientation Program for Semester 4, 6, & 8 - February 4th, 2021***

The Department of Chemical Engineering at Chaitanya Bharathi Institute of Technology (CBIT) successfully organized an online orientation program on February 4th, 2021, for students of semesters 4, 6, and 8. The event aimed to provide guidance and insights into the academic journey ahead while setting a strong foundation for future academic and professional goals.

The program began with a warm welcome by the faculty coordinators, followed by an introductory session highlighting the significance of this orientation in aligning students with their academic roadmap. Key speakers, including faculty members and department heads, addressed the students, sharing valuable information about the curriculum structure, advanced topics in chemical engineering, and the importance of a holistic approach to academics and career planning.

During the session, specific emphasis was placed on upcoming academic activities, industrial visits, internships, and research opportunities. Students were briefed about the available resources, such as online platforms, laboratories, and mentorship programs, which are designed to support their academic growth and skill enhancement.

The faculty also highlighted the importance of co-curricular and extracurricular activities, encouraging students to participate in technical events, competitions, and workshops to gain a competitive edge in the industry. Practical advice on time management, teamwork, and effective learning strategies was shared to help students excel academically and professionally.

The event concluded with an interactive Q&A session, where students clarified their doubts and received personalized guidance from faculty members. The orientation served as a platform to inspire and motivate students to make the most of their upcoming semesters and contribute positively to their academic community.

The overwhelming participation and enthusiasm from both students and faculty made the event a grand success, setting the tone for an exciting and productive semester ahead.

**Interactive Session with 2nd, 3rd, and 4th-Year Chemical Engineering Students****Date: December 15th, 2022**

On December 15th, 2022, the Department of Chemical Engineering at Chaitanya Bharathi Institute of Technology (CBIT) organized an engaging interaction between the Head of the Department (HoD) and the students of 2nd, 3rd, and 4th-year Chemical Engineering. The session was designed to foster open communication, address student concerns, and provide insights into academic and career development pathways.

The event commenced with a warm welcome by the HoD, who emphasized the importance of such interactive sessions in bridging the gap between students and faculty. The session provided an open forum for students to voice their queries, share feedback, and discuss their aspirations and challenges.

The HoD elaborated on the department's ongoing initiatives, including industry collaborations, upcoming workshops, internships, and research opportunities. Students were briefed on the latest developments in the field of chemical engineering, equipping them with knowledge about emerging technologies and trends. A special emphasis was placed on the importance of building a strong foundation in technical skills, enhancing problem-solving abilities, and staying updated with industry demands.

The session also highlighted the department's support system, including mentorship programs, access to state-of-the-art facilities, and guidance for higher studies and placements. The HoD encouraged students to actively participate in academic and co-curricular activities, including national-level technical fests, conferences, and competitions, to enhance their overall learning experience.

Students enthusiastically participated in the discussion, sharing their ideas and seeking clarity on academic progression, internship opportunities, and career prospects. The HoD provided practical advice on navigating the challenges of engineering education and encouraged students to remain proactive in their pursuit of knowledge and excellence.

The interactive session concluded on a positive note, with students expressing gratitude for the opportunity to connect directly with the HoD. The event successfully created a sense of community and motivation among the students, inspiring them to strive for both academic and personal growth. Such sessions underscore the department's commitment to nurturing a supportive and student-centric learning environment.

**Alumni Meet 2022 – A Memorable Reunion****Date: December 25th, 2022**

On December 25th, 2022, the Department of Chemical Engineering at Chaitanya Bharathi Institute of Technology (CBIT) organized a vibrant Alumni Meet, bringing together alumni from various batches and faculty members. This much-anticipated event served as a platform to celebrate the enduring bond between the institution and its former students while fostering meaningful connections between the alumni and the current faculty.

The event began with a warm welcome address by the Head of the Department, who expressed gratitude to the alumni for their continued association and contributions to the department's growth. The HoD highlighted the department's achievements, ongoing projects, and future plans, emphasizing the pivotal role alumni play in enhancing the institution's reputation and outreach.

The alumni actively participated in interactive discussions, sharing their professional journeys, industry insights, and experiences since graduating from CBIT. Their inspiring stories not only highlighted the diverse career paths available to chemical engineering graduates but also motivated the faculty and attendees to aim higher in their respective endeavors.

The faculty members, in turn, expressed their pride in the accomplishments of the alumni and discussed ways to strengthen the alumni network. Key topics included mentorship opportunities, industry-academia collaboration, guest lectures, and support for current students through internships and placement drives.

The meet also served as a nostalgic trip down memory lane, with alumni reminiscing about their college days, sharing fond memories, and reconnecting with their peers and professors. The interactive environment facilitated the exchange of ideas and fostered a strong sense of community.

The event concluded with a vote of thanks delivered by the organizing team, acknowledging the efforts of everyone involved in making the Alumni Meet 2022 a grand success. The day ended on a high note, with group photographs capturing the spirit of togetherness and unity.

The Alumni Meet 2022 not only rekindled old bonds but also paved the way for future collaborations and contributions, reinforcing the department's commitment to nurturing a robust and dynamic alumni network. It was a memorable occasion that celebrated the achievements and legacy of CBIT's Chemical Engineering Department.

**Interaction Session with 2nd, 3rd, and 4th-Year Chemical Engineering Students****Date: October 22nd, 2021**

On October 22nd, 2021, the Department of Chemical Engineering at Chaitanya Bharathi Institute of Technology (CBIT) organized an engaging interaction session for 2nd, 3rd, and 4th-year students with the Head of the Department (HoD). This session aimed to foster open communication, address student queries, and provide valuable insights into the academic and professional aspects of chemical engineering.

The HoD began the session by welcoming the students and providing an overview of the department's recent achievements, ongoing initiatives, and plans for the future. Key highlights included updates on new academic programs, research opportunities, and industry collaborations aimed at enhancing the learning experience for students.

During the interactive session, the HoD emphasized the importance of staying proactive and committed to academic excellence while also encouraging students to participate in co-curricular and extracurricular activities. The session provided a platform for students to voice their opinions, share concerns, and seek guidance on various topics such as internships, placement opportunities, higher studies, and industry trends.

The discussion also covered the curriculum structure, project opportunities, and the importance of building core competencies in chemical engineering. The HoD highlighted the significance of skills like computational thinking, problem-solving, and adaptability in preparing for the dynamic challenges of the industry.

Students appreciated the opportunity to engage directly with the HoD and gain clarity on critical topics related to their academic and professional journeys. The HoD encouraged students to actively participate in departmental events, workshops, and technical sessions to enhance their practical knowledge and skill set.

The session concluded with the HoD motivating the students to set ambitious goals and work diligently toward achieving them. The open and constructive dialogue during the session fostered a sense of trust and collaboration between the department and its students, creating a positive and encouraging academic environment.

The interaction session served as a valuable platform for addressing student concerns, inspiring them to excel in their academic and professional pursuits, and strengthening the bond between the department and its students.

**Guest Lectures for 2nd, 3rd, and 4th-Year Chemical Engineering Students****Dates: November 19th and November 25th, 2021**

The Department of Chemical Engineering at Chaitanya Bharathi Institute of Technology (CBIT) organized a series of insightful guest lectures for 2nd, 3rd, and 4th-year students on November 19th and November 25th, 2021. These lectures were designed to bridge the gap between academic learning and industry practices, offering students a glimpse into real-world applications and advancements in chemical engineering.

On November 19th, a guest lecture was conducted for the 2nd-year students, focusing on fundamental concepts and their relevance to modern-day challenges. The speaker, an esteemed professional in the field, emphasized the importance of strong foundational knowledge and shared practical insights into the emerging trends in chemical engineering. The lecture provided valuable guidance for students to align their academic pursuits with industry requirements.

On November 25th, the 3rd and 4th-year students participated in another engaging guest lecture that delved deeper into advanced topics. The session covered key areas such as process optimization, sustainability in chemical processes, and advancements in technology. The speaker also highlighted the significance of interdisciplinary approaches and the growing role of computational tools in solving complex engineering problems.

Both lectures offered students an opportunity to interact with industry experts, ask questions, and gain clarity on critical topics related to their curriculum and career prospects. The speakers encouraged students to stay updated with industry advancements and actively participate in research, internships, and technical events to enhance their knowledge and skills.

These guest lectures were instrumental in motivating students, broadening their perspectives, and fostering a deeper understanding of chemical engineering's evolving landscape. The department's initiative in organizing such events reflects its commitment to providing a comprehensive and industry-relevant education.

***Field Trip to Kanapur Village as Part of Community Engagement Course******Date: February 2021***

The Department of Chemical Engineering at Chaitanya Bharathi Institute of Technology (CBIT) organized a field trip for 1st-semester students to Kanapur Village, near Gandipet, Hyderabad, in February 2021. This visit was conducted as part of the Community Engagement course, designed to provide students with an opportunity to connect with rural communities and understand their challenges, fostering a sense of social responsibility and civic engagement.

During the visit, students explored various aspects of village life, including education, health, sanitation, agriculture, and infrastructure. They engaged directly with the villagers to understand their needs and challenges, gaining firsthand insights into the socio-economic conditions of the rural population. This interaction encouraged students to think critically about the ways in which engineering and technology can contribute to societal development.

The field trip also served as a platform to observe the existing infrastructure in the village, such as roads and clean drinking water facilities, highlighting the progress made in rural development. The students had the privilege of interacting with the Sarpanch and other community members, further deepening their understanding of governance and daily life in rural areas.

Accompanied by faculty members from the department, the visit aimed to integrate academic learning with real-world exposure, emphasizing the importance of social awareness in engineering education. This initiative helped students realize the broader implications of their studies and the role they can play in addressing societal challenges.

The trip to Kanapur Village was a valuable learning experience, encouraging students to think beyond the classroom and consider the impact of their future work on community development and sustainability.



CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY

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Interaction Session with 2020 Batch Alumni

Date: 23rd November 2021

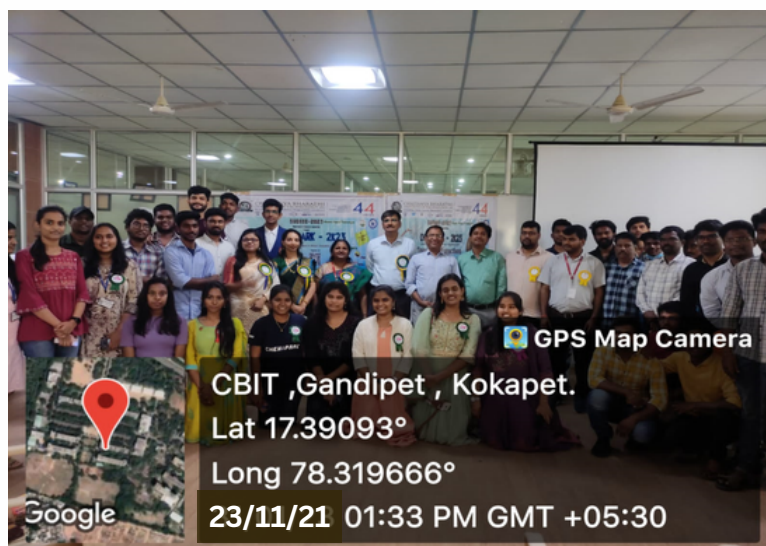
The Department of Chemical Engineering at Chaitanya Bharathi Institute of Technology (CBIT) organized an engaging interaction session with the alumni of the 2020 batch on 23rd November 2021. The session, led by the Head of the Department (HOD), aimed to reconnect with the alumni and provide a platform for exchanging insights, experiences, and updates about academic and professional growth.

The session focused on the alumni sharing their journey after graduation, including higher education pursuits, industry experiences, and career accomplishments. This interaction served as a valuable opportunity for the department to understand the impact of its curriculum and teaching practices on the professional development of its graduates.

The HOD highlighted the importance of alumni in shaping the department's vision and mission, emphasizing their role as mentors and role models for current students. Discussions also revolved around the evolving trends in the chemical engineering field, bridging the gap between academic learning and industry expectations.

The event not only strengthened the bond between the department and its alumni but also underscored the department's commitment to fostering a lifelong connection with its graduates. The session concluded with expressions of gratitude from the HOD and faculty, acknowledging the contributions of the alumni to the department's continued success and growth.

This interaction exemplified CBIT's dedication to building a vibrant and supportive alumni network that enriches the academic and professional journeys of both students and graduates.



***Title: Online Alumni Meet 2021 – A Nostalgic Reunion******Date: 25th December 2021***

The Department of Chemical Engineering at Chaitanya Bharathi Institute of Technology (CBIT) hosted an online alumni meet on 25th December 2021. The virtual event witnessed enthusiastic participation from 28 alumni, spanning from the first graduating batch of 1999 to the most recent batch of 2020. Faculty members and alumni came together to celebrate the shared legacy of the department and reconnect across generations.

The meet served as a platform for alumni to share their professional journeys, personal achievements, and fond memories of their time at CBIT. Faculty members took the opportunity to provide updates about the department's recent developments, including advancements in curriculum, research initiatives, and student achievements.

Discussions during the event focused on the changing landscape of the chemical engineering industry, the importance of networking, and opportunities for alumni to contribute to the department's growth through mentoring, guest lectures, and collaborative projects.

The event was marked by vibrant interactions, where alumni expressed their gratitude for the foundation laid by CBIT in their careers and lives. The faculty, in turn, acknowledged the alumni's contributions to upholding the department's reputation in academia and industry.

The meet concluded with heartfelt expressions of appreciation from both faculty and alumni, reiterating the importance of sustaining strong bonds between the department and its alumni network. The success of this online reunion highlighted the enduring connection and pride shared by the CBIT Chemical Engineering family.



Industrial visit organized for VI & VIII sem Chemical Engg Students to Industrial Visit to CIPET March, 2021

In March 2021, an industrial visit was organized for the 6th and 8th-semester Chemical Engineering students of Chaitanya Bharathi Institute of Technology (CBIT) to the Central Institute of Plastics Engineering & Technology (CIPET), Hyderabad. The visit aimed to provide students with practical exposure to the plastics industry, helping them connect their theoretical knowledge with real-world applications.

During the visit, students explored the various stages of plastic processing, including raw material selection, molding, extrusion, and finishing. They were introduced to key manufacturing techniques such as injection molding, blow molding, and extrusion. The students also observed the advanced plastic testing instruments used for quality control, including Universal Testing Machines, UV Weatherometers, and Impact Strength Testers, which assess the physical and chemical properties of plastics.

The visit featured discussions with industry professionals, who shared insights into current trends, challenges, and innovations in the plastics sector, particularly the growing focus on sustainability and the development of eco-friendly plastics. This interaction allowed students to ask questions and gain deeper knowledge of material science, process optimization, and environmental concerns.

The exposure to real-world industry operations bridged the gap between classroom learning and industrial practice. Students witnessed how chemical engineering principles are applied in manufacturing and understood the importance of safety, quality control, and environmental standards in the industry.

Overall, the CIPET visit was a valuable experience that broadened the students' understanding of the plastics industry and enhanced their preparedness for future careers in chemical engineering.

